

Dear Editors and Reviewers,

Thank you for your letter and comments concerning our manuscript titled "Sustained dialysis with misplaced peritoneal dialysis catheter outside peritoneum: a case report". (Manuscript NO.: 70408, Case Report). The reviewers' comments and suggestions really helped in improving the quality of the paper. We would like to thank the reviewers for their valuable time and efforts. We have studied the comments carefully and have made corrections which we hope would meet the approval guidelines. The revised portions in the article have been marked with colored text. The main corrections in the paper and the responses to the reviewers' comments are as follows:

Responses to the reviewer's comments:

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: This manuscript described a rare condition : a sustained peritoneal dialysis with a misplaced extra-peritoneal dialysis catheter in patient undergoing peritoneal dialysis. This patient used it for more than four years. The reason of this case was analyzed.

Our response: Thank you sincerely for your careful reviewing and professional comments.

Please further describe how the necessary laboratory and imaging tests are used to prevent these cases happening again.

Our response: To prevent such events from happening again, it is essential to ensure the position of the catheter tip during the peritoneal dialysis catheter insertion by imaging or when possible, using methods such as catheter tip fixation. Subsequently, clinicians following up a patient undergoing peritoneal dialysis should remain watchful of signs such as perineal or scrotal edema, or edema of the abdominal muscle. Various laboratory parameters such as kt/Vurea and dialysis creatinine clearance could be evaluated to assess adequacy of peritoneal dialysis. Furthermore, abdominal computed tomography test should be carried out to confirm the peritoneal dialysis catheter location when there is a suspicion based on the above parameters. We have taken care to describe this in the discussion in the manuscript.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: This report describes an interesting case of subdialysis due to malposition of the peritoneal catheter tip.

Our response: We sincerely thank you for your careful reviewing and professional comments.

Regarding the title, I don't really think we could say a misplaced peritoneal dialysis catheter. That's because over the years there could have been a spontaneous trans peritoneal extrusion. This phenomenon is more frequently described in the ventriculo-peritoneal shunt tips. So I think the authors should discuss this aspect.

Our response: Thank you for pointing out the possible scope for misinterpretation of the word 'misplaced' in the title. In this case since the PD catheter placement was done at an outside hospital and there was no imaging documentation verifying the proper placement of the catheter tip after insertion, the word dislodgement or displacement will not be appropriate either. Since the word misplaced is inclusive of both the displacement of the tip during the insertion or spontaneous extrusion at a later time too, for the lack of a better word, misplacement would be the best approximation of the uncertainty of timing of displacement that is conveyed in this case.

On the other hand, if in fact the tip had been out of the peritoneum for 4 years, dialysis could already be very bad over those years. It seems to me that this subdialysis occurred more recently, which reinforces the idea of tip extrusion rather than poor previous placement of the catheter tip.

Our response: It is a reasonable expectation that a suboptimal dialysis over four years could lead to deterioration of renal function, however since we don't know what was the residual kidney function when the PD catheter was placed, it is also possible that the patient could exchange the dialysate through the available peritoneal membrane to maintain his kidney function. Furthermore, the decline in renal function is not linear and would depend on various factors. We believe that the residual kidney function played an important role in supporting the suboptimal peritoneal dialysis efforts, which then gradually declined making the patient symptomatic in the last few months.

During the discussion, the authors assume that the catheter was positioned behind the rectum sheath posteriorly and the fascia without passing through the peritoneum, so that the catheter tip was located between the transversalis

fascia and the peritoneum for 4 years? Do you think it would be possible during all these years? In my opinion a catheter extrusion should be included in the differential diagnosis in this case

Our response: Thank you for your suggestion. The reasoning stated by you is fairly appropriate and logical. As we noted in the discussion, our reasoning to support the position of the tip is supported by the fact that the patient did not develop perineal or scrotal edema, nor did the dialysate enter into the abdominal muscle, therefore we deduced the catheter tip getting located between the transversalis fascia and peritoneum. Due to the anatomic disposition of the muscle layers in the abdomen and protrusion of the catheter out of the abdomen skin, the chances of a PD catheter tip getting extruded from within the peritoneal cavity to the space between peritoneum and transversalis fascia would be less probable than the extrusion in the opposite direction, thus indicating our deduction of misplaced catheter tip. However, we agree with you that catheter extrusion could also be a rare possibility so we have edited the discussion in the manuscript to include this as a differential diagnosis.

Reviewer #3:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: Good manuscript. Few spelling and grammar errors, rest is fine

Our response: Thank you sincerely for your careful reviewing and helpful comments. We have revised the manuscript addressing the minor typographical errors and have taken care to further improve the grammatic expressions.

Self-cited references: There is 1 self-cited reference. The self-referencing rates should be less than 10%. Please keep the reasonable self-citations (i.e. those that are most closely related to the topic of the manuscript) and remove all other improper self-citations. If the authors fail to address the critical issue of self-citation, the editing process of this manuscript will be terminated;

The self-citation that is used in the reference 4, is an essential part of the explanation to improve the outcome of peritoneal dialysis catheter placement and has been cited by more than eleven major published articles that discuss this topic. However as per the guidelines, we decide to delete this reference.

Should we need get the language certificate?

We attest that two of the authors (TRB and DA) in this manuscript are native English-speaking experts who have taken due diligence to further improve and polish this manuscript while maintaining its scientific vigor and readability. The above-mentioned authors have authored published manuscripts in numerous high impact esteemed journals and have individually contributed to many acclaimed scientific communication platforms as well. We therefore urge the editorial board to waive the need for English language certificate.

We have studied the reviewers' inputs very carefully and have taken extreme diligence in further improving the manuscript. The English in the manuscript has been further polished and the manuscript has been edited to incorporate the suggestions by the reviewers. These changes improve the manuscript without affecting the content and framework of the manuscript. The revised portions in the manuscript are marked with colored text for easy discernability.

We appreciate the Editors and the Reviewers for their meticulous work, and hope that these amendments will meet the approval requirements. Once again, thank you very much for your comments and suggestions.

Thank you and best regards.

Yours sincerely,

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